NWS FORM E-5 (11-88) **(PRES. by NWS Instruction 10-924)** **U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE**	HYDROLOGIC SERVICE AREA (HSA) **WFO Jackson, Mississippi**
MONTHLY REPORT OF HYDROLOGIC CONDITIONS	REPORT FOR: MONTH **March** YEAR **2012**
TO: Hydrometeorological Information Center, W/OH2 NOAA / National Weather Service 1325 East West Highway, Room 7230 Silver Spring, MD 20910-3283	SIGNATURE **Alan E. Gerard, Meteorologist In-Charge** DATE **04/20/2012**

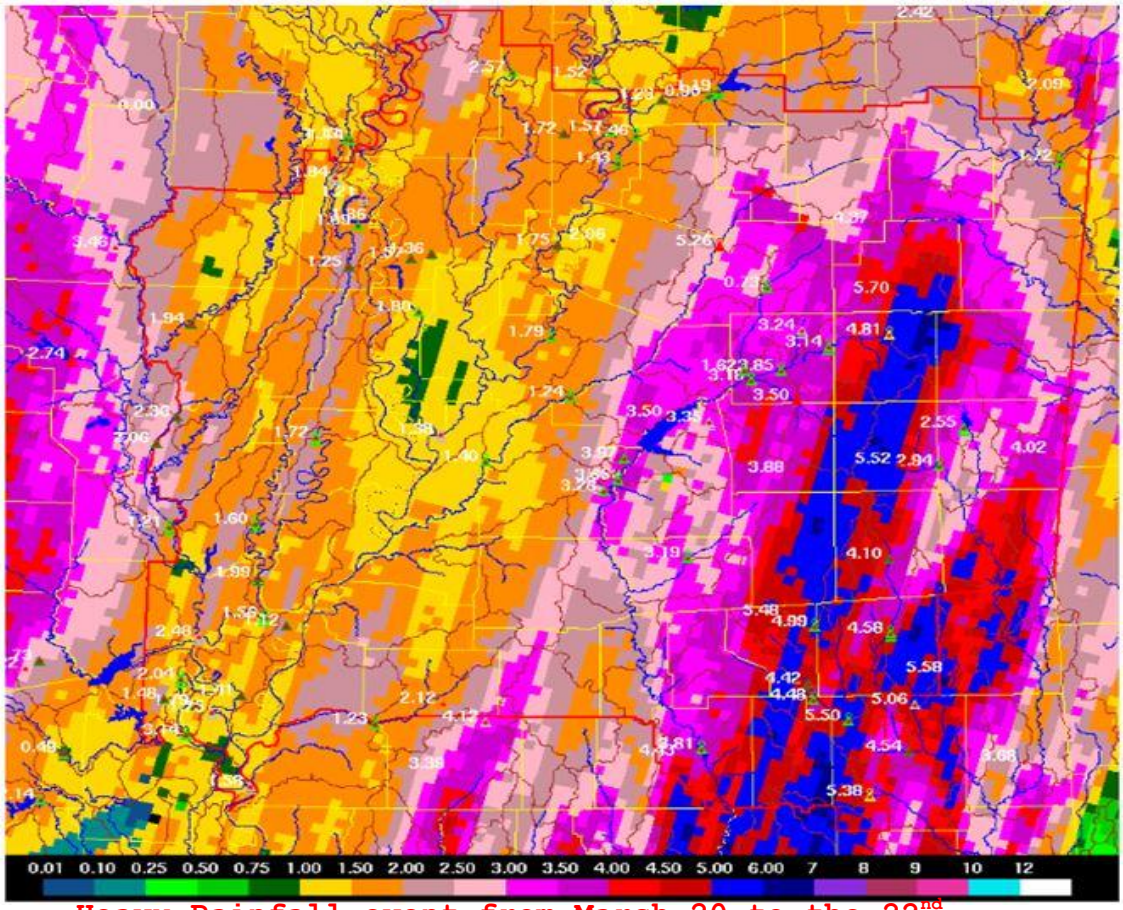
When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (NWS Instruction 10-924)

☐ **An X inside this box indicates that no river flooding occurred within this hydrologic service area.**

Synopsis...

March was unseasonably warm. Temperatures ranged from 8 to 10 degrees above normal across the Hydrologic Service Area (HSA). Many record high temperatures were reported during the month. Rainfall was at or above normal across much of the area. Southwest and portions of Central Mississippi, southern sections of Northeast Louisiana, and portions of the Yazoo Delta had below normal rainfall. A slow moving system on March 21st and 22nd produced heavy rainfall in Southeast and East Mississippi. Flash flooding and river flooding occurred across this area.

7:00 pm Tuesday March 20, 2012 to 1:00 pm Thursday March 22, 2012



Heavy Rainfall event from March 20 to the 22nd

The month began with a frontal system stalling along Interstate 20. Rainfall from 0.25 to 1.50 inches fell across northern portions of the HSA. Another cold front pushed through the region from the afternoon of the 2nd and into the morning of the 3rd. Large hail, high wind, and heavy rainfall were reported across northern and central portions of the HSA. Several small tornadoes touched down in South Mississippi. Rainfall ranged from 0.50 to 3.50 inches across the region. The heaviest rainfall fell in East Mississippi. On the 3rd, light rainfall continued across Southeast Mississippi. This area of rainfall pushed southeast as an upper level trough approached from the west. During the day on the 5th, a weak, dry cold front pushed into northern areas and dissipated. High pressure centered along the East Coast dominated the weather through the 7th.

On the 8th, High pressure shifted east as yet another cold front that pushed across the HSA. Rainfall ranged from 1.50 to 3.50 inches over all but Southeast Mississippi, where 0.50 to 2.50 inches fell. Surface high pressure and an upper level ridge built into the southeastern U.S. on the 10th blocking the eastward movement of an upper level low pressure center. From the 11th through the 12th, the upper level low pressure center moved northeastward over the ridge across the southeastern states. On the 11th, with a strong southerly flow continuing across the HSA, heavy rainfall and severe weather occurred across Southeast Arkansas and Northeast Louisiana. A small tornado touched down in West Carroll Parish, LA. Rainfall from 0.75 to 2.50 inches fell across this area. Rainfall ranging from 0.25 inches or less fell from southwest portions of the HSA through the northeastern portions while from 0.25 to 1.00 inch fell across Southeast Mississippi.

A strong flow from the Gulf of Mexico continued across the region from the 12th to the 19th bringing warm, moist conditions. Some scattered to isolated light showers were reported over the area most days during this period. On the 19th, a deep trough over the western U.S. began slowly moving eastward into an upper level ridge and surface high pressure centered over the southeastern U.S. By the 20th, the system intensified producing a closed upper level low pressure center over New Mexico. Strong southerly flow occurred across the HSA on the 20th and 21st. A cold front moved eastward across the HSA during the day on the 21st ahead of an upper level low pressure now centered over Oklahoma. Severe weather was reported along and south of Interstate 20 on the 21st. Tornadoes, ranging from EF-0 to EF-2, were reported in Jefferson, Warren, Claiborne, Rankin, Jones, Forrest, and Jasper Counties in Mississippi. Heavy rainfall also fell from late on the 20th into 21st across most of the area and continued into the 22nd in Southeast Mississippi. Heavy rainfall produced river flooding and flash flooding across eastern and southeastern Mississippi. Rainfall amounts ranged from 1.00 to 2.00 inches west of Interstate 55 while east of I-55 rainfall ranged from 2.00 to 6.50 inches. By the morning of the 24th, the upper low pressure center and surface cold front were east of the HSA allowing weak high pressure to build into the region. This brought nice spring weather to the area through the 28th.

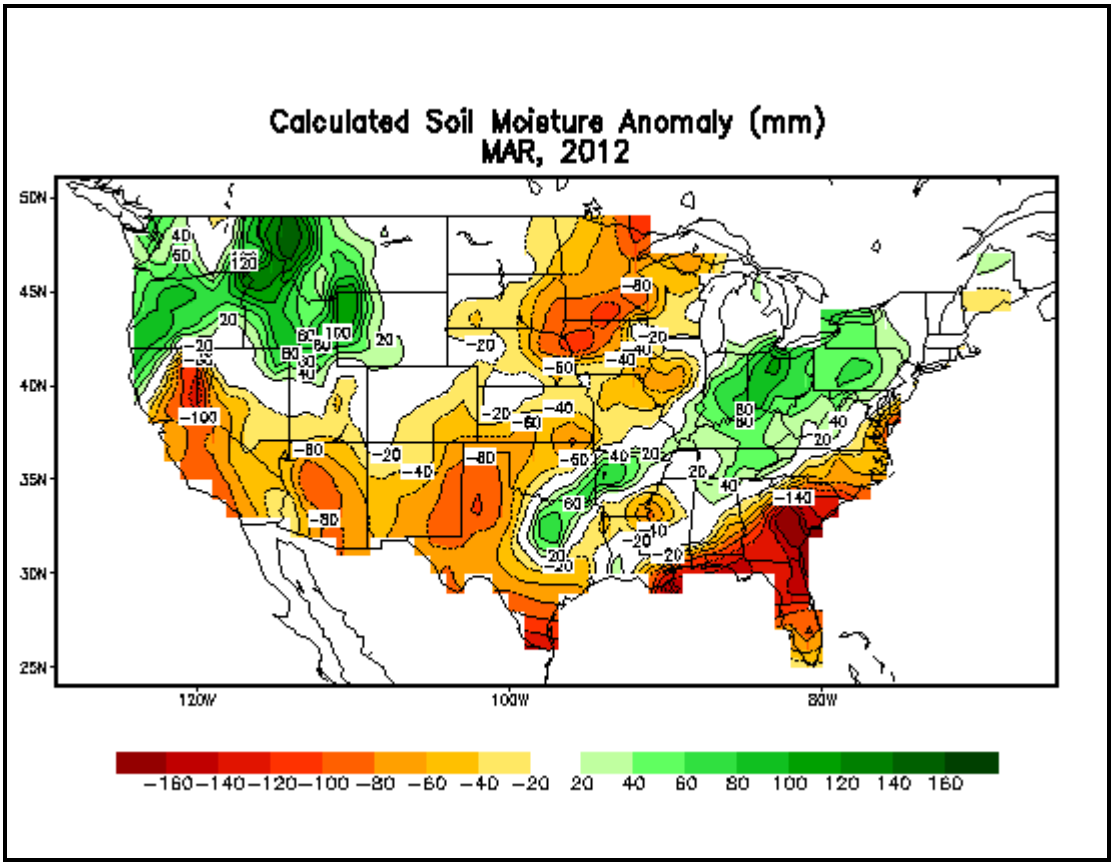
Southerly flow around high pressure to the east allowed warmer and more humid conditions to return to the HSA. A southern jet stream mid level disturbance pushed across the area from the 29th to the 30st bringing showers and thunderstorms to the region. Widespread rainfall from 0.25 to 1.50 inches fell across areas west of Interstate 55 while only scattered

amounts from 0.25 to 1.00 inch occurred east of I-55. Weak high pressure controlled with weather on the 31st.

River and Soil Conditions...

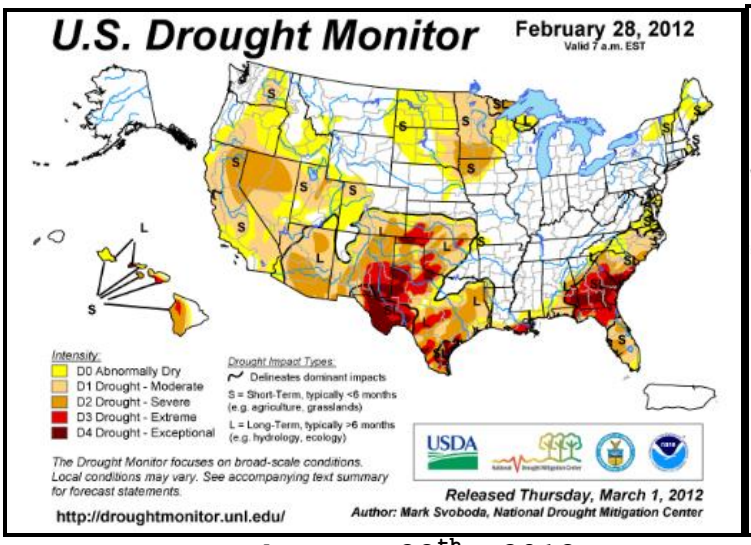
Rainfall in March ranged from 50 to 150 percent of normal across all but Southeast Mississippi where rainfall ranged from 100 to 200 percent of normal.

Soil moisture deficits ranged from 1.00 to 3.00 inches in northern portions of Northeast Louisiana, Southeast Arkansas and across our northern most counties in Mississippi. The remainder of the area had near normal soil moisture.

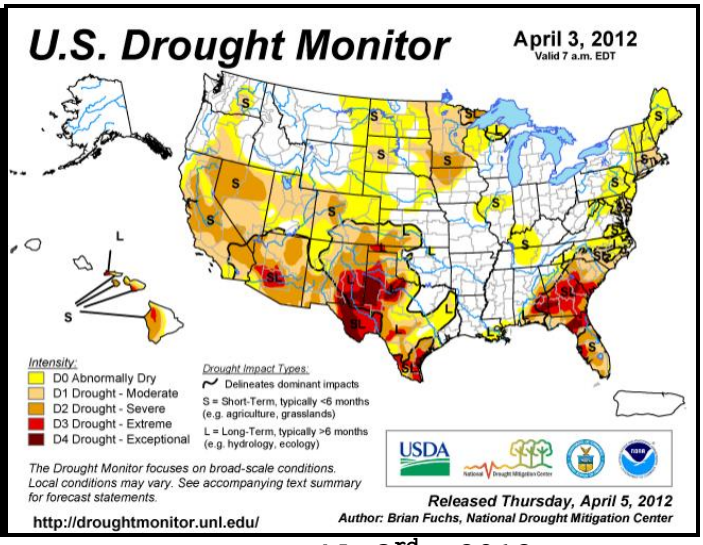


March 2012

A comparison of the February 28th U.S. Drought Monitor to the April 3rd U.S. Drought Monitor showed that drought conditions had not returned to the HSA.

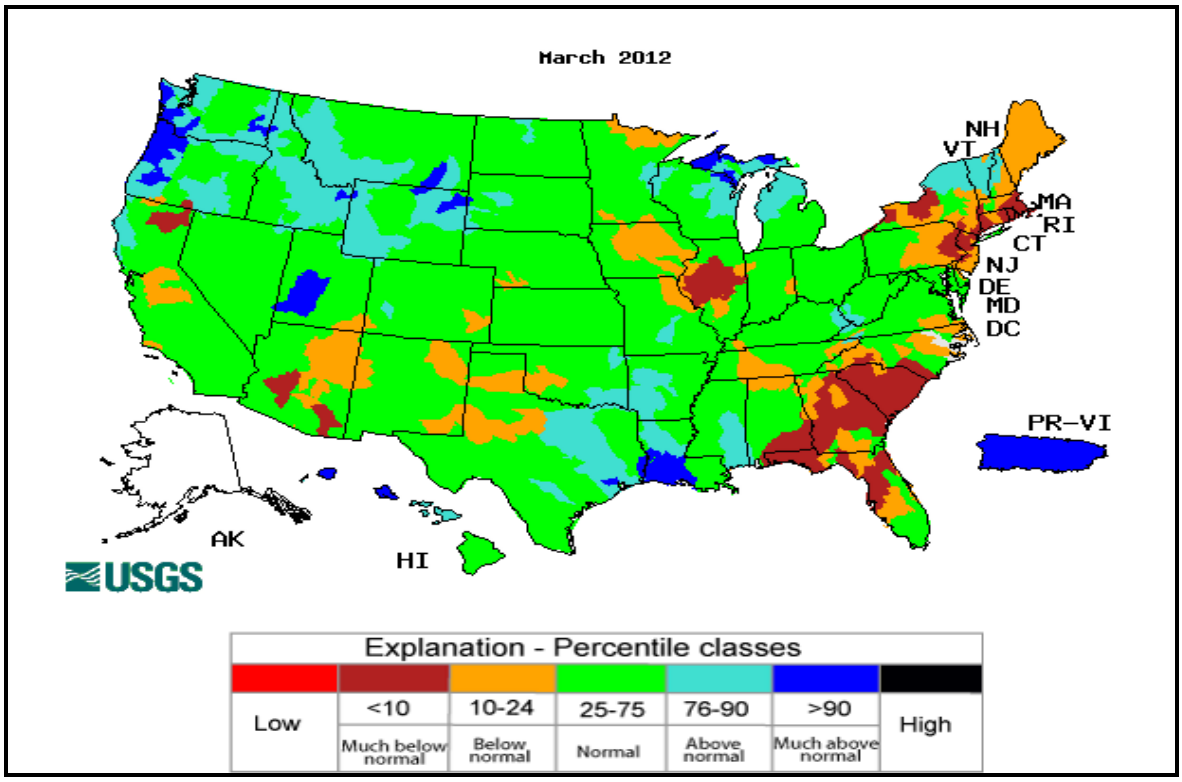


February 28th, 2012



April 3rd, 2012

The United States Geological Survey's (USGS) March 2012 river streamflow records were compared with all historical March streamflow records. River streamflow was near normal. The only exception was across the Pascagoula River System in East and Southeast Mississippi where streamflow was above normal.



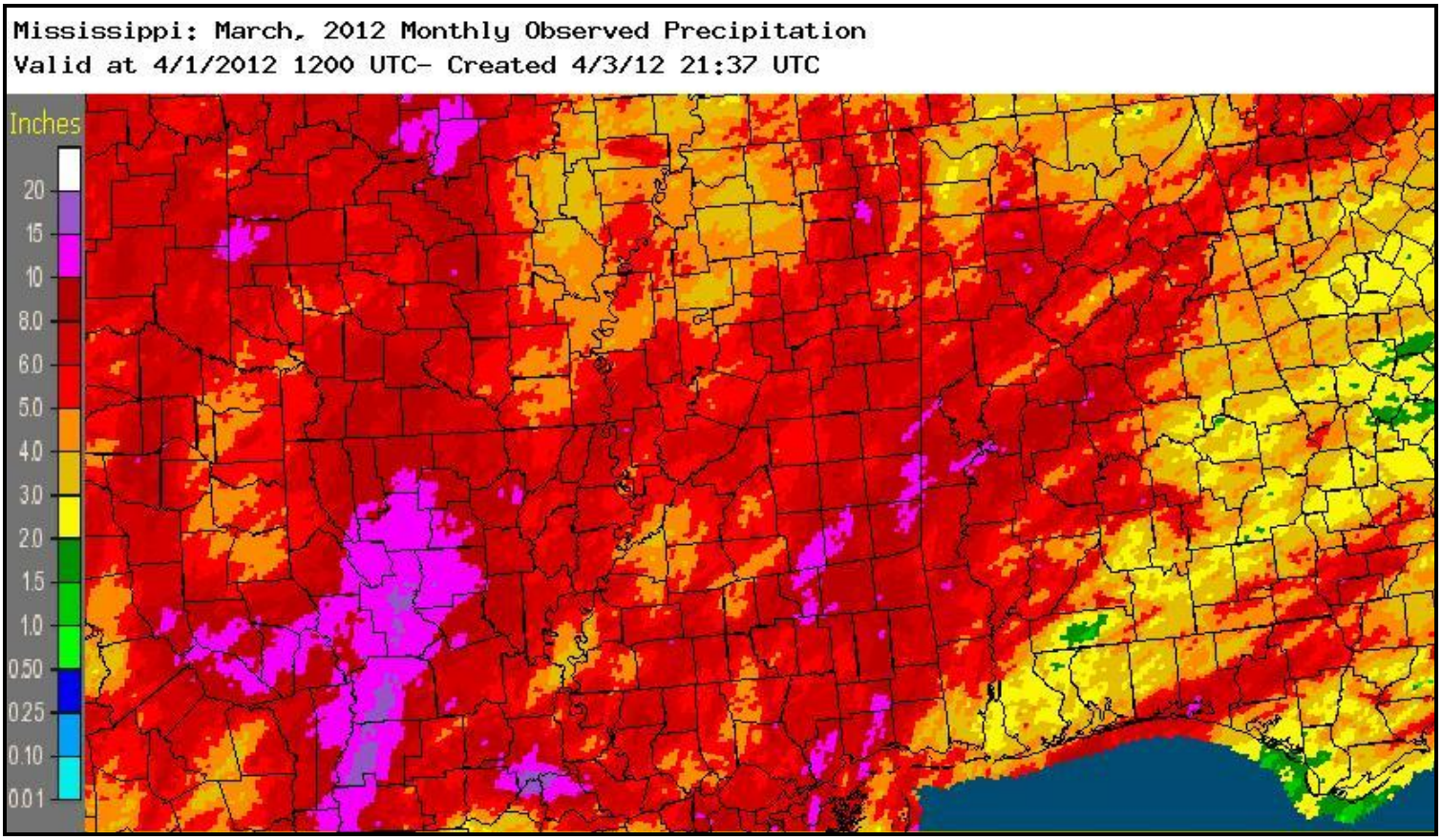
Moderate flooding occurred on the Pearl River at Philadelphia, Big Black River at Bentonia, and Tallahala Creek at Laurel during the month. Minor flooding occurred along much of the remainder of the Pearl River and Big Black River, Tuscolameta Creek, Bouie Creek, Upper Chickasawhay, Black Creek, and Tibbee Creek basins in Mississippi. Minor flooding also occurred along the Lower Bouef River in Northeast Louisiana.

Temperatures are expected to remain above normal while chances are even for above normal, below normal or normal rainfall in the 1 to 3 month time period. Based on current soil moisture, streamflow, and 1 to 3 month weather outlooks, flood potentials are as follows:

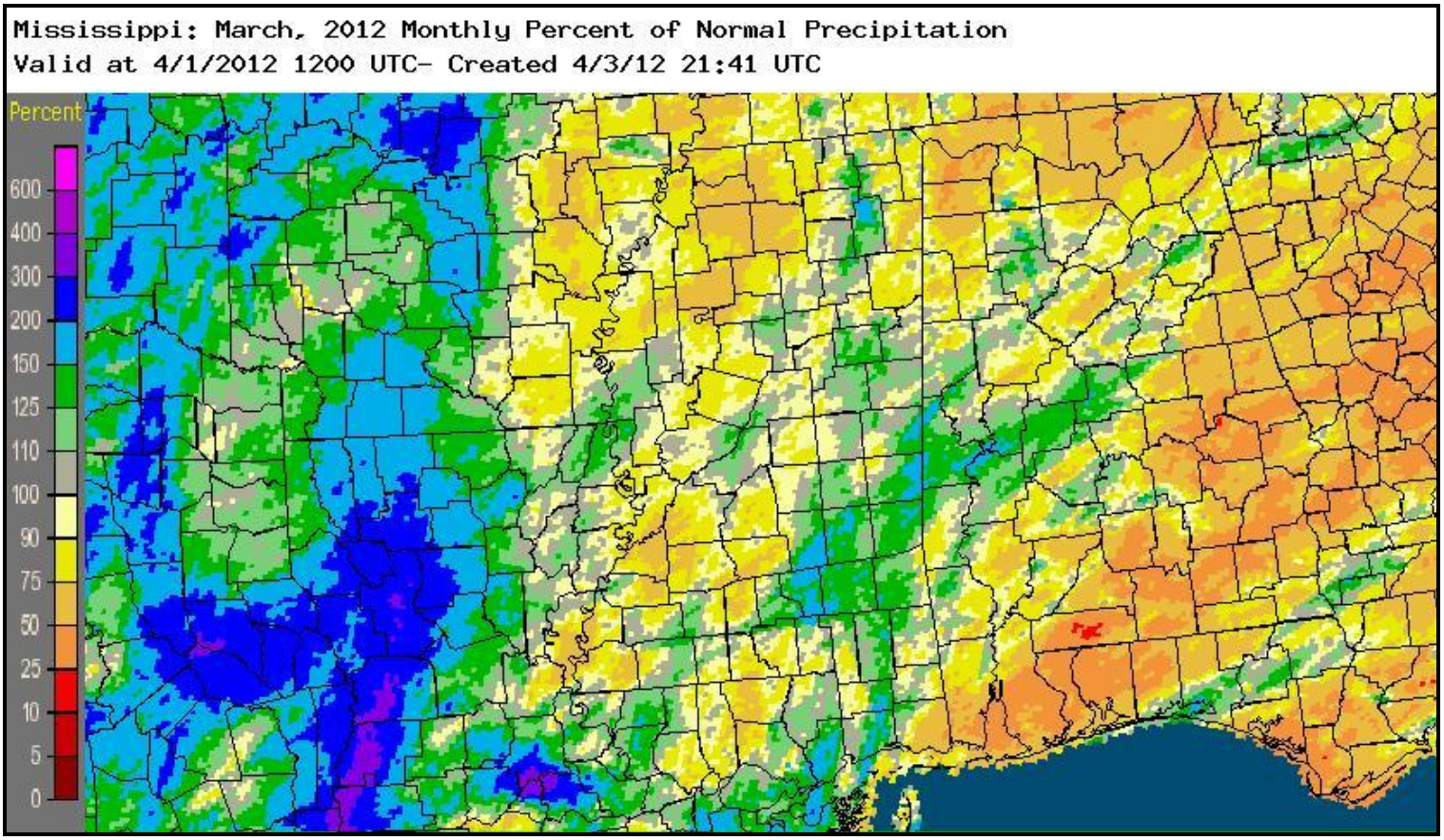
***Pearl River System*:**	**Average.**
***Yazoo River System*:**	**Average.**
***Big Black River System*:**	**Average.**
***Homochitto River System*:**	**Average.**
***Pascagoula River System*:**	**Average.**
***Northeast LA and Southeast AR*:**	**Average.**
***Tombigbee River System*:**	**Average.**
Mississippi River:	**Average.**

Rainfall for the month of March

The largest rainfall amounts in the HSA from NWS Cooperative Observer reports during the period from 7 am on February 29th until 7 am on March 31st were: 13.02 inches at Crandall, MS; 11.39 at Sumrall, MS; 10.70 inches at Mize, MS; 10.54 inches at Bay Springs, MS; 10.25 inches at Hattiesburg, MS; 10.14 inches at Pat Harrison Waterway's Turkey Creek Water Park, MS; 10.11 inches at Shubuta, MS; 9.95 inches at Purvis, MS; 9.94 inches at Oak Ridge, LA; 9.35 inches at Pat Harrison Waterway's Big Creek Water Park, MS.



March 2012 Rainfall Estimates



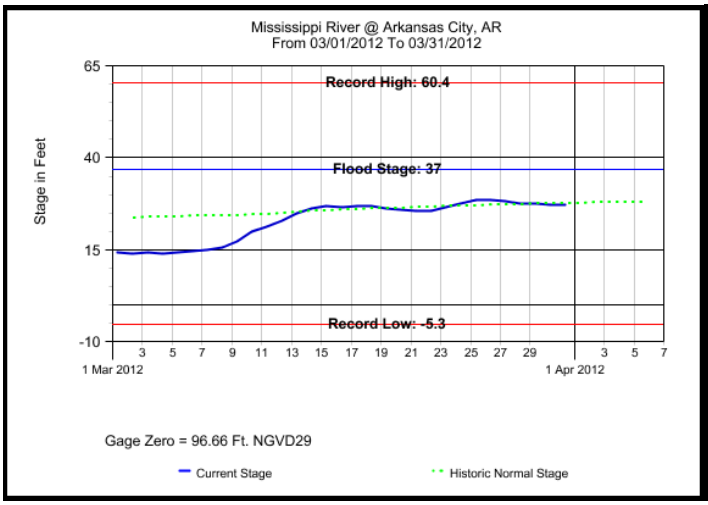
March 2012 Percent of Normal Rainfall Estimates

Note: Observer rainfall and MPE may differ due to time differences.

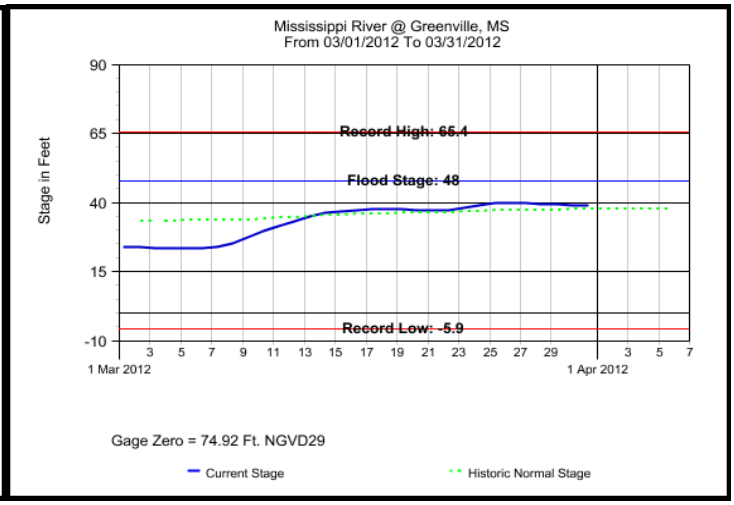
March rainfall for Selected Cities...

City (Airport)	March Rainfall	Departure from normal	2012 Rainfall	2012 Departure from Normal
Jackson, MS	7.06	+2.02	19.36	+4.59
Meridian, MS	8.98	+3.56	21.31	+5.16
Greenwood, MS	4.42	+0.11	10.50	-2.75
Greenville, MS	4.93	+0.38	9.55	-4.99
Hattiesburg, MS	9.02	+3.52	22.17	+5.54
Vicksburg, MS	5.59	+0.56	15.37	+1.05

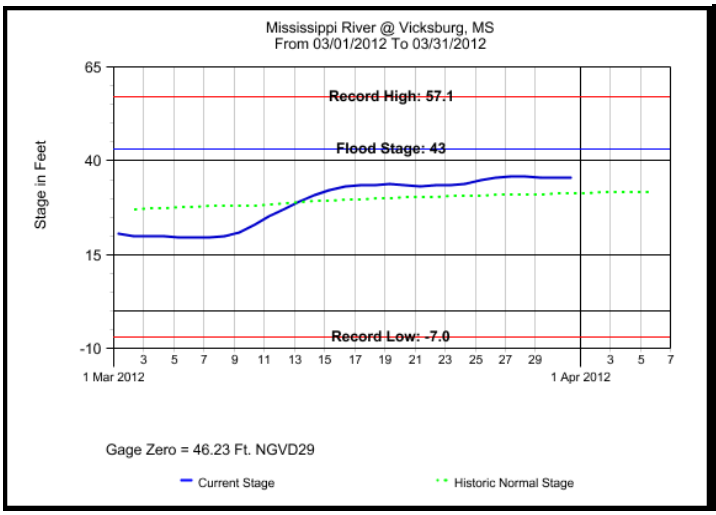
Mississippi River...
Mississippi River Plots for March, 2012
Plots Courtesy of the United States Army Corps of Engineers



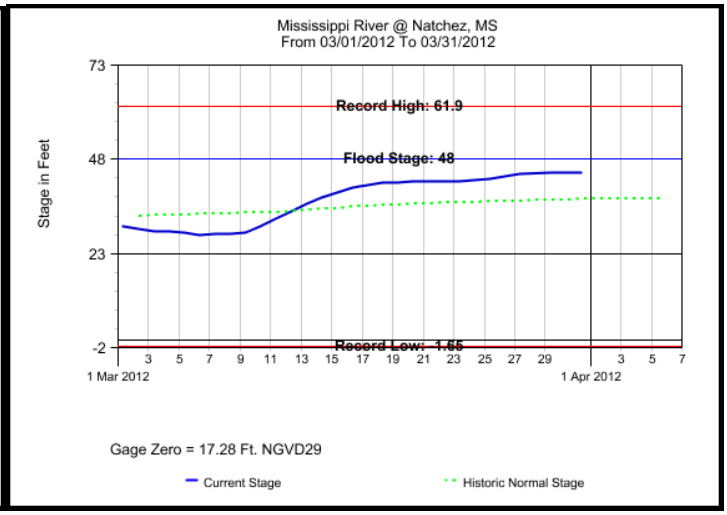
ARKANSAS CITY, MS



GREENVILLE, MS



VICKSBURG, MS



NATCHEZ, MS

Preliminary high and low stages for the month:

Location	FS	High Stage(ft)	Date	Low Stage(ft)	Date
Arkansas City, AR	37	28.57	03/26/12	13.95	03/04/12
Greenville, MS	48	39.87	03/26/12	26.57	03/05/12
Vicksburg, MS	43	35.82	03/28/12	19.43	03/06/12
Natchez, MS	48	44.54	03/30/12	28.00	03/06/12

Total Flood Warning products issued: 25
Total Flood Statement products issued: 107
Total Flood Advisories MS River : 00
Daily Climate and Ag WX Products (AGO'S) issued: 31
Daily CoCoRaHS Rainfall Products (LCO'S) issued: 31
Daily River and Lake Summary Products (RVD'S) issued: 31

Marty V. Pope

Service Hydrologist &
Latrice Maxie

Assistant Hydrologist/Observing Program Leader (OPL)

Note: Provisional stage and precipitation data were furnished with the cooperation of the Mississippi, Louisiana, and Arkansas National Weather Service Cooperative Observer Programs, United States Geological Survey (USGS), United States Army Corps of Engineers (USACE), Pearl River Valley Water Supply District (PRVWSD), Pat Harrison Waterway District, Pearl River Basin Development District, and the Mississippi Department of Environmental Quality.

cc: USGS Little Rock District
USGS Ruston District
USACE Mobile District
USACE Vicksburg District
USACE Mississippi Valley Division
USGS Mississippi District
SRH Climate, Weather and Water Division
Lower Mississippi River Forecast Center
Pearl River Valley Water Supply District
Hydrologic Information Center
Southern Region Climate Center
Pat Harrison Waterway District
Pearl River Basin Development District